REMARKS

Claims 1 and 6 have been amended.

Claims 2 and 7 have been canceled. The limitations recited in Claims 2 and 7 have been incorporated into Claims 1 and 6, respectively.

Claims 14-22 have been added.

Support for the amendments to Claims 1 and 6 can be found in the original claims. Support for the new claims can be found on pages 4-5 and 8 of the specification. No new matter has been added to the application by way of the above amendments.

The rejection of Claims 1-13 under 35 U.S.C. § 102(b) as anticipated by Brunner is unsustainable because the claimed catalyst has a composition different from the catalyst of Brunner.

The claimed catalyst comprises at least one metal on a support material, wherein the support material has an average pore diameter of 25-50 nm and a surface area greater than 30 m^2/g, wherein over 90% of the total pore volume of the support materials is comprised of meso- and micropores with a diameter of 0.1-50 nm. The specification defines pores having a diameter smaller than 2 nm as micropores, a diameter from 2 to 50 nm as mesopores, and a diameter greater than 50 nm as macropores (see page 4). As discussed in the specification, the claimed catalyst with meso and micropores surprisingly possess improved activity, selectivity, stability, and hydrogenates aromatic carboxylic acids without significant side reactions (see pages 3-5).

In contrast, Brunner discloses a generic catalyst having a support material with an average pore diameter of at least 50 nm and a surface area of at most 30 m^2/g, wherein about 50 to 90% of the total pore volume of the support material is composed of the particles having diameter from 2 to 50 nm (see col. 2 and claims 1-3). Brunner further discloses three different specific catalysts. Catalyst 1 has an average pore diameter of at least 50 nm and a

surface area of at most 30 m^2/g (see col. 4). Catalyst 2 has the support material with an average pore diameter of from 5 to 20 nm and a surface area of about 50 to 500 m^2/g, wherein 50 to 95% of the pores have a diameter of 2-50 nm (see col. 5-6). Catalyst 3 has an average pore diameter of at least 100 nm and a surface area of about 0.2 to 15 m^2/g (see col. 7).

The catalysts of Brunner comprise at best 50-95% of mesopores with a diameter 2-50 nm, but does not comprise micropores. Therefore, even if the range of a pore diameter in Brunner and the claimed invention overlaps, Brunner does not disclose a catalyst having over 90% of the total pore volume of the support materials comprising meso- and micropores with a diameter from 0.1 to 50 nm. Moreover, neither of the disclosed catalysts, *i.e.*, the generically disclosed catalyst and catalysts 1-3, of Brunner have all characteristics of the catalyst in Claim 1. Voluntary mixing and matching different characteristics from different embodiments of Brunner based on the applicants' invention does not constitute anticipation and is impermissible. Therefore, Brunner fails to anticipate a catalyst having average pore diameter of a support material from 25 to 50 nm, a surface area greater than 30 m^2/g, wherein over 90% of the total pore volume of the support materials is composed of meso- and micropores with a diameter from 0.1 to 50 nm. Applicants request that this rejection be withdrawn.

Claims 1, 3 and 13 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hahnfeld. Similar to Brunner, Hahnfeld does not disclose a catalyst comprising a support material having meso- and micropores with a diameter of from 0.1 to 50 nm. Instead, Hahnfeld discloses a catalyst comprising a support material having an average pore diameter from 300 to 400 nm and from 30 to 70 nm (col. 6). Hahnfeld's catalyst also has a specific surface area from 10 to 100 m^2/g. Hahnfeld further discloses that at least 98% of the pores have a diameter greater than 30 nm (*i.e.*, mesopores). Therefore, Hahnfeld does not anticipate the claimed catalyst. Applicants request that this rejection be withdrawn.

Claims 1, 3 and 13 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hayes.

Hayes discloses a process for producing hydrocarbons. Hayes' process comprises using a catalyst disposed on a support material having an average pore diameter from 2 to 30 nm and a surface area from 25 to 500 m^2/g (see col. 4-5). Hayes does not disclose that the support material has over 90% of the total pore volume composed of meso- and micropores with a diameter of from 0.1 to 50 nm. Therefore, similar to Brunner and Hahnfeld, Hayes does not disclose a catalyst having all characteristics of the claimed invention and, therefore, Hayes does not anticipate Claims 1, 3 and 13. Applicants request that the rejection be withdrawn.

A Notice of Allowance for all pending claims is requested.

Respectfully submitted,

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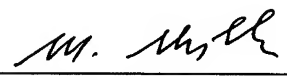

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